FILE 'BIOSIS, HCAPLUS, COMPUSCIENCE, BIOTECHDS, BIOTECHNO' ENTERED AT 19:34:47 ON 16 AUG 2002

L1 533054 S COMPUTER
L2 112096 S SCREEN
L3 5927 S CD40L OR (CD40 L) OR (CD40 LIGAND)
L4 4 S L1 (15A) L3
L5 2 DUP REM L4 (2 DUPLICATES REMOVED)
L6 502827 S CRYTALL? OR ATOMIC
L7 0 S L3 (15A) L6
L8 1286519 S CRYSTALL? OR ATOMIC
L9 7 S L3 (15A) L8
L10 7 S L9 NOT L4
L11 4 DUP REM L10 (3 DUPLICATES REMOVED)
L12 1023 S L1 (3A) L2
L13 1 S L12 (7A) L8
L14 3 S L12 (15A) L8
L15 2 S L14 NOT L13
L16 172017 S 3D OR (THREE DIMENSION?)
L17 4906 S L8 (15A) L16
L18 3 S L3 (15A) L16
L19 3 S L18 NOT L9
L20 3 DUP REM L18 (0 DUPLICATES REMOVED)
L21 3412 S L1 (7A) L8
L22 31 S L21 (7A) DISPLAY
L23 1 S L21 AND L3
L24 15 S L3 AND L8
L25 8 S L24 NOT L9
L26 8 DUP REM L25 (0 DUPLICATES REMOVED)
L27 30 DUP REM L22 (1 DUPLICATE REMOVED)

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27 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2002 ACS

AB Interactive graphics programs in color which help the user visualize certain aspects of x-ray crystallog. are described. The programs are designed to be used in sequence. The object of the 1st, PLANEDIR, is to help the user visualize crystal planes and directions in space as defined by Miller indexes. Eight different variants of planes and direction are displayed, and they can be rotated around x, y, or z axes to aid in visualization. The 2nd program, STEREOGRAM, produces stereograms of any crystal structure, including triclinic. The user can specify angles and axial lengths where appropriate. Stereograms of either planes of directions can be displayed, and the projections can be rotated around the central pole. The 3rd program, STEREOCUBE, produces stereograms of a material having a cubic crystal structure. Plane normal and direction are input. The stereogram can be transformed to represent another plane normal and direction by mimicking the use of a Wulff net. Also, rotation about any pole can be demonstrated. To aid in understanding, a cube having the same orientation as the stereogram is displayed along side. It moves as the stereogram rotates. The next program, POLEFIG, shows how pole figures of cubic materials are built up from reflections from individual crystallites. Cubes are also used on this program to illustrate the relationship between crystal orientation and position on the pole figure. A relatively new x-ray crystallog. technique used Euler angles rather than Miler indexes to describe the orientation of crystals in a polycryst. material. The final program in the series, CODF, helps the user understand the relationship between Euler angles and Miller indexes. It also illustrates how the Schmid factor changes with crystal orientation and stress direction. All programs are written in compiled BASIC and require a computer with .gtoreq.128 K memory, a graphics card, and an RGB color monitor.

AN 1986:19152 HCAPLUS

DN 104:19152

TI Interactive graphics programs for x-ray crystallography on a personal computer

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SO Comput. Usage Mater. Educ., Proc. Symp. (1985), Meeting Date 1984, 113-22. Editor(s): Liedl, Gerald L.; Sree Harsha, K. S. Publisher: Metall. Soc., Warrendale, Pa.
CODEN: 54NFA3

DT Conference

LA English